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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,673	09/30/2005	Pierre Alinat	4590-446	5578
33308	7590	07/06/2007		
LOWE HAUPTMAN & BERNER, LLP 1700 DIAGONAL ROAD, SUITE 300 ALEXANDRIA, VA 22314			EXAMINER PIHULIC, DANIEL T	
			ART UNIT 3662	PAPER NUMBER
			MAIL DATE 07/06/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/551,673		ALINAT ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Daniel Pihulic		3662	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20050930</u>  | 6) <input type="checkbox"/> Other: ____                           |

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

3. Claims 14-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 25 and 26 depend from canceled claim 11 and are thus considered incomplete.

Claim 14 recites the limitation "the first pulses" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the pulses FP" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the detection of objects" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the predetermined criterion" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the classifying" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the bottom echoes" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claims 15-20, 23 and 24 are rejected for depending from the aforementioned parent claims.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 14, 15, 20 and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by US4562438. The US4562438 reference discloses the utilization of a method for processing received signals corresponding to a transmitted signal recurrently comprising two pulses (see column 1, lines 6 to 10), one Doppler-tolerant broadband pulse (see column 1, line 59: "frequency modulation (e.g., frequency sweeping)" ) and one Doppler-sensitive broadband pulse (see column 1, line 59: "frequency modulation"; column 1, lines 60 to 61: "phase modulation"; column 1, line 61: "linear or non-linear" ), comprising: an object detection step carried out on the portion of the received signal corresponding to the pulses and providing an alarm for each object detected (see column 2, lines 7 to 11), and a detected object classification step (this is performed by all radar or sonar systems) wherein classification of the detected objects is carried out on the portion of the received signal corresponding to the Doppler-sensitive pulses for the alarms complying with at least one predetermined criterion (see column 2, lines 11 to 16; column 4, lines 39 to 44) as recited in the aforementioned claims.

With regards to claim 15, see column 2, lines 11-16 and column 4, lines 40-44.

With regards to claim 20, see column 5, line 52; column 2, lines 11-16 and column 4, lines 40-44.

With regards to claim 25, see column 1, lines 65-66 and column 6, lines 25-27.

With regards to claim 26, see column 1, lines 67-68 and column 6, lines 23-25.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 16-19 and 22-24 are rejected under 35 U.S.C. 103 as being unpatentable over US4562438 as applied to claim 14 above, and further in combination with Carmillet et al. Claim 23 additionally recites the utilization of HFM and BPSK. The Carmillet et al. reference teaches that it was well known in the art to utilize HFM (see column 6, lines 10-22) and BPSK (see column 6, lines 23-30) . It would have been obvious to modify the US4562438 reference to utilize HFM and BPSK as motivated by the Carmillet et al. reference to enable the US4562438 system to enhance signal processing.

With regards to claim 24, see column 6, line 23 of US4562438.

The additional features of dependent claims 16-19 and 22 would have been routine steps for a person skilled in the art. They relate to well-known signal processing techniques.

8. Claim 21 is rejected under 35 U.S.C. 103 as being unpatentable over US4562438 as applied to claim 20 above, and further in combination with US2431854. Claim 21 additionally recites estimating the Doppler. The US2431854 reference teaches that it was well known to estimate the Doppler (see column 2, lines 28-39). It would have been obvious to modify the

Art Unit: 3662

US4562438 reference to estimate the Doppler as motivated by the US2431854 reference to enable the US4562438 system to compensate for relative movement.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pihulic whose telephone number is 571-272-6977. The examiner can normally be reached on Monday and Wednesday through Friday from 5:30 a.m. to 4 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza, can be reached on 571-272-6979.

The fax phone numbers for the organization where this application or proceeding is assigned are:

571-273-8300 for official responses, and

571-273-6977 for unofficial communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the telephone number 800-786-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

**/Daniel Pihulic/  
Daniel T. Pihulic  
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T.C. Art Unit 3662**